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For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: USE OF A TOPICAL MEDICAMENT COMPRISING RILUZOLE

(57) Abstract: The present invention further relates to the use of Riluzole in a topical medicament for the treatment and/or prevention of neuronal or brain diseases and/or injuries, as well as topical combination preparations comprising Riluzole and agents effective in treating neuronal or brain diseases and/or injuries.

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/004478

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/428 A61K45/06 A61P17/06 A61P17/00 A61P25/00
A61P25/08 A61P25/14 A61P25/16 A61P25/18 A61P25/20
A61P25/22 A61P25/24

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, EMBASE, BIOSIS, MEDLINE, SCISEARCH, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/016563 A (EXONHIT THERAPEUTICS SA ;AIT IKHLEF ALI (FR); RESINK ANNELIES (FR)) 27 February 2003 (2003-02-27) page 32; example 4	9,10
X	EP 0 904 777 A (OREAL) 31 March 1999 (1999-03-31) claims 1,4,6-8,16-19	14-17
X	WO 99/42103 A (HEURTEAUX CATHERINE ; CENTRE NAT RECH SCIENT (FR); LAZDUNSKI MICHEL (F) 26 August 1999 (1999-08-26) page 5, line 3 - line 10 page 5, line 33 - line 35 page 6, line 12 - line 20 page 7, line 30 - page 8, line 2	14-17

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

10 September 2004

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>ABDUL M ET AL: "Voltage-gated sodium ion channels in prostate cancer: Expression and activity"</p> <p>ANTICANCER RESEARCH 2002 GREECE, vol. 22, no. 3, 2002, pages 1727-1730, XP008021818</p> <p>ISSN: 0250-7005</p> <p>abstract</p> <p>figure 3</p> <p style="text-align: center;">-----</p>	1-22

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/004478

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 12 (partially)
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-17, 21 and 22

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-17, 21 and 22

Topical medicament comprising riluzole, combination preparations comprising riluzole and their use for the therapy or the prevention of diseases characterized by hyperproliferation of keratinocytes and/or T-cells, in particular for the treatment or prevention of psoriasis or atopic dermatitis

2. claims: 18-20

Topical medicament comprising riluzole and combinations thereof and their use for the therapy and/or prevention of neuronal or brain diseases and/or injuries.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 12 (partially)

The structural identity of compound ASM-240 could not be found, so that it is unclear to which compound this definition is referring (Article 6 PCT).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03016563	A	27-02-2003	FR 2828693 A1	21-02-2003
			CA 2457611 A1	27-02-2003
			EP 1417349 A2	12-05-2004
			WO 03016563 A2	27-02-2003
			US 2004219552 A1	04-11-2004
			US 2003064374 A1	03-04-2003

EP 0904777	A	31-03-1999	FR 2768624 A1	26-03-1999
			CA 2245206 A1	25-03-1999
			EP 0904777 A1	31-03-1999
			JP 11158027 A	15-06-1999
			JP 2002193834 A	10-07-2002
			US 6616933 B1	09-09-2003
			US 2003202994 A1	30-10-2003

WO 9942103	A	26-08-1999	FR 2774908 A1	20-08-1999
			EP 1054668 A1	29-11-2000
			WO 9942103 A1	26-08-1999
